

**Amendments to and Listing of the Claims:**

Please cancel claims 16-36 as follows:

1-9. (cancelled)

10. (withdrawn) A method of compressing digital media advertisements for insertion into a statistically multiplexed digital transmission stream containing a plurality of digital program streams with a plurality of advertising opportunities, the method comprising:

determining a first bit rate profile for a first advertising opportunity;

determining a second bit rate profile for a second advertising opportunity; and

specifying a predetermined bit rate profile for compression of a first advertisement and a second advertisement, wherein the predetermined bit rate profile provides a limit to the sum of the first bit rate profile and the second bit rate profile.

11. (withdrawn) The method of claim 10, further comprising:

compressing the digital media advertisements according to the predetermined profile; and

inserting the compressed digital media advertisements into the statistically multiplexed digital transmission stream within the first and the second advertising opportunities.

12. (withdrawn) The method of claim 10, wherein the predetermined bit rate profile specifies the instantaneous sum of the first bit rate profile and the second bit rate profile.

13. (withdrawn) The method of claim 11, wherein the predetermined bit rate profile is the total bits from the start point to the end point of both the first bit rate profile and the second bit rate profile.

14. (withdrawn) The method of claim 11, wherein the first bit rate profile is complementary with the second bit rate profile.

15. (withdrawn) The method of claim 11, wherein the first bit rate profile has a first high bit rate portion, the second bit rate profile has a second high bit rate portion, and the first high bit rate portion and the second high bit rate portion are staggered.

16-36. (canceled)

37. (previously presented) A method for inserting advertisements into a statistically multiplexed transmission stream containing a plurality of program streams with a plurality of advertising opportunities, the method comprising:

determining a first avail rate profile for a first avail within a first program stream, wherein the first avail rate profile is based at least in part on a first program stream rate profile for the first program stream;

determining a second avail rate profile for a second avail within a second program stream, wherein the second avail rate profile is based at least in part on a second program stream rate profile for the second program stream;

generating a composite avail rate profile based on the first avail rate profile and the second avail rate profile;

assigning a first advertisement rate profile to the first avail and a second advertisement rate profile to the second avail, wherein the first advertisement rate profile is not limited by the first avail rate profile and the second advertisement rate profile is not limited by the second avail rate profile, and wherein a combined first advertisement and second advertisement rate profile is limited by the composite avail rate profile;

compressing the first advertisement according to the first advertisement rate profile and the second advertisement according to the second advertisement rate profile;  
and

inserting the compressed first advertisement in the first avail and the second advertisement in the second avail.

38. (previously presented) The method of claim 37, wherein the composite avail rate profile specifies the instantaneous sum of the first avail rate profile and the second avail rate profile.

39. (previously presented) The method of claim 37, wherein the first advertisement rate profile is complementary with the second advertisement rate profile.

40. (previously presented) The method of claim 37, wherein the first advertisement rate profile has a first high advertisement rate portion, the second bit rate profile has a second high bit rate portion, and the first high bit rate portion and the second high bit rate portion are staggered

41. (previously presented) A system for inserting advertisements into a statistically multiplexed transmission stream containing a plurality of program streams with a plurality of advertising opportunities, the system comprising:

a statistical multiplexer capable of determining a first avail rate profile for a first avail within a first program stream and a second avail rate profile for a second avail within a second program stream;

a video compressor capable of compressing a first advertisement and a second advertisement at an aggregate rate profile which is less than or equal to sum of the first avail rate profile and the second avail rate profile; and

a video inserter capable of inserting the compressed first advertisement in the first avail and the second compressed advertisement in the second avail.

42. (previously presented) The system of claim 41, wherein said video compressor compresses the first advertisement at the first avail rate profile and the second advertisement at the second avail rate profile that is complementary with the first avail rate profile.